DEC 4 1988

Ref: 8HWM-SR

Loretta Pickerell
Utah Bureau of Solid & Hazardous Waste
Utah Department of Health
P. O. Box 15700
Salt Lake City, Utah 84116-0700

Dear Loretta:

Listed below are comments on the following site inspections:

1. UTD000690883 - Salt Lake County Landfill Parcels I and II
2. UTD980952816 - Salt Lake County Landfill Parcels III and IV
3. UTD980959308 - Enercor
4. UTD980959258 - Lark Tailings
5. ~~UTD~~ - Denver & Rio Grande Railroad - Roper Yard South
5. UTD980635932 - Bland Landfill
7. UTD980959225 - Wasatch Plaza
8. UTD980959233 - State Motorcycle Park

General Comments

Please note that every blank on the SI form should be completed with the appropriate information. Categories most often left blank are: "Site Identification", "Total Population with 1-3 Miles of the Site" and "Field Measurements Taken". As previously stated in our comments, it is important that the "Total Population Affected" be completed in Part 5. By identifying the population affected within a 3-mile radius we are better equipped to evaluate the likelihood for the site to receive an HRS score.

There were few grammatical and typographical errors in various reports. These errors should be corrected prior to final submission of the SI's.

UTD000690883 - Salt Lake County Landfill Parcels I and II

Part 5 - Water, Demographic and Environmental Data - Fill in the Total Population within 1 and 3 miles of the site.

Part 6 - Determine the depth to bedrock beneath the site and its relative permeability.

Part 6 - Fill in the appropriate statement under Flood Potential. The statement "from Great Salt Lake exists" does not make sense.

Recommendation: concur that a follow up site inspection should be conducted. This follow up site inspection should include the installation of monitoring wells into the upper ten feet of the alluvial aquifer to characterize contaminants present.

UTD980952815 - Salt Lake County Landfill Parts III and IV

Part 2 - IV Hazardous Substances - Fill in categories.

Part 5 - Discharge Area - Answer yes to the question asked.

Part 5 - Total Population Within 1-3 Miles of Sites - Fill in.

Part 5 - Permeability of Bedrock, Depth to Bedrock - Determine bedrock type and depth. Determine permeability at bedrock based on rock type.

Part 6 - Flood Potential - Statement should read Flood Potential from the Great Salt Lake exists at the present site.

Part 6 - Distance to Wetlands - Fill in if less than 3 miles, if greater than 3 miles indicated with the following notation 3.0 miles.

- Field Measurements Taken - State type of field parameters taken (i.e., Temp, pH cond., HNu, etc.).

- Other Field Data - Fill in if available. If unavailable write in not taken.

Part 8 Operator Information - Fill in years of operation.

Recommendation: concur with recommendation for followup site inspection.

Narrative: In the Sampling Report it states that samples were collected at the downstream collection point and progressed upstream. Depending on the sampling location and rationale this procedure could be incorrect. If the samples were collected from the main channel of the stream then their sampling procedure was correct, and would have avoided mixing up the stream sediment, which has the possibility of migrating downstream during sample collection and possibly showing up in the analytical results for the downstream samples. However, if the samples were collected from the bank or near the bank, collection of the samples should have been done from an area of least contamination to area of highest contamination. The sample collection method and rationale needs to be discussed in this report.

Part 2 - Waste States, Quantities and Characteristics Identify CAS Numbers for Hazardous Substances Under Part IV.

UTD[illegible]930S - Emercor

✓ Part 3 - ✓Water, Demographic and Environmental Data - What is the potential yield of the aquifer? Under Hydrogeology of the study area the aquifer is described as a lacustrine deposit controlled by the variability of sediments in the horizontal and vertical directions. The yield of the aquifer must be known. This can be determined by either:

(i) Existing pumping test data from area wells within three mile radius of the site.

(ii) State Engineer's logs for wells within a one mile radius of the site that provide a discharge in gallons/minutes, the gallons/day can then be calculated by multiplying the discharge by 1440.

✓ Depth to bedrock needs to be determined from either an aerial geologic map, well logs or by calculation from strike and dip of an outcrop on the Wasatch Mountain front to the east.

Recommendation: It does not appear that an immediate removal is not warranted. However, the site should be cleaned up and the waste removed in the near future. Ground water is used for commercial, industrial and irrigation purposes as well as for drinking water. However, other drinking water supplies are available.

UTD980959258 - Lark Tailings

Narrative:

- 1) Groundwater Samples

The methodology for collecting groundwater samples should include continuous monitoring of field parameters (temperature, pH and specific conductance). Samples should be collected after at least two casing volumes have been evacuated, and after the field parameters have stabilized to ensure the samplers are collecting formation water. When collecting spring samples it is essential that the spring first be developed into a continuous flow to avoid collecting sediment sample. This can be accomplished by digging a trench approximately six inches deep, installing a five foot section of slotted PVC pipe at the base of the spring. This is connected to a five foot solid section of PVC. The PVC is covered and allowed to develop. At the discharge of the PVC an eighteen inch hole is dug for collection of samples and determining flow rates.

- 4) Equipment Decontamination

  - Sample equipment decontamination for inorganics should include a triple deionized rinse after the final tap water rinse. The pump discharge lines should be decontaminated between wells to avoid cross-contamination.

  - Spelling errors on page 11.

  - Sampling Summary

    Samples for metals should be field filtered through a .45 micron filter and acidified with nitric acid to a pH 2.0.

Recommendations — Background water quality must be addressed, therefore a background well needs to be installed upgradient. However, due to the abundance of existing downgradient nested wells, additional wells downgradient are not needed or justified unless exiting wells are improperly installed.

Denver and Rio Grande Western Railroad South Roper Yard UTD 981545932

Site Inspection Summary:

- Grammatical spelling/typographical errors occur on pages 1, 4, 14, 18, 20, 23, and 24. Figure 3 north arrow needed on the map.

Sample Collection:

- Analysis for dissolved metals should be field filtered through a .45 micron membrane filter and then acidified with nitric acid to a pH 2.0.

- Groundwater Samples - Field parameters of pH, temp and specific conductance should be monitored and samples collected only after all field parameters have stabilized.

- There is a contradiction between sample collection on page 18, where the report states that "no preservative was used in bottles to be analyzed for organics or for total chemistry which includes dissolved metals". However, under Quality Control page 24, the report states that "the dissolved metals were filtered and the preserved". The report must clarify which method was actually used. If the samples for dissolved metals were not acidified after collection and field filtering many of the metals would precipitate and provide unreliable analysis results.

Site Inspection

- Identification - State site number, identify and fill in on all pages.

Part 3 Hazardous Conditions and Incidents

- Groundwater Contamination

  Narrative Description reads: Copper sulfate accumulation near springs indicated likelihood of elevated levels of contaminants. Therefore alleged as well as observed categories should be checked.

Part 5 Description of Wells

- Needs to state if wells are completed in the alluvium or bedrock. This makes a major difference in "Population Potentially Affected." If the wells are not completed in the same geohydrologic unit (see block diagram Figure 5), the chemical data in Section III is of no beneficial use.

- Recharge Area - Include reference (i.e. Heby 1971) in Site Inspection Report under attachments.

- Net Precipitation - In the western United States this value should be negative number. Net Precipitation is the difference between Mean Annual Precipitation and Mean Annual Evapotranspiration.

Land Use in Vicinity

- Residential areas: National/State Parks, Forests and Wildlife Reserves - Fill in.

Recommendation: concur that a followup site inspection should be performed, including the installation of monitoring wells.

Part 3 Groundwater Contamination

- Correct typographical errors (i.e. within, use). Mark appropriate condition (i.e. observed, potential, alleged).

- Drinking Water Contamination - Identify appropriate conditions (e.g. observed, potential, alleged).

- Unstable Containment of Wastes - Fill in Population Potentially Affected.

Part 5 Drinking Water Supply

- The reference water supply well should be non-community (D) and monitored (C) to coincide with the Distance to Site (8) less than 1.0 mile to the Skinner Well. Potential Yield of Aquifer, on page 3, the statement should read: 14,400 gpd, as indicated in the geology text.

Depth to Bedrock

- Determine depth to bedrock from available information. If this data is unavailable indicate 400' as stated in geologic sector of the report, page 8.

- The description of site in relation to surrounding topography does not make sense. This sentence should read: "The site lies in a fault block valley, whose sediments from the surrounding Quinn and Wasatch mountain ranges have accumulated in the Ancient Lake Bonneville."

Part 9

- III. Off Site Generators - Fill in the information asked about the Vitro Uranium Company.

- e. Sources of Information - Fill in (e.g. site inspection dates).

Recommendations: Concur with no further action recommendation.

UTD980633932 - Clark Landfill

Executive Summary

- Statement should read landfills, tailings impoundments, gunnery range instead of gun.

- Typographical and grammatical errors appear on pages 2 and 4.

Waste Characterization

- What is the basis for assuming their 230 yd^3 of hazardous material at the landfill? Please state reference or method of calculation.

Recommendation: Based on the draft HRS score and the site inspection report the recommendation for remedial work appears appropriate. A detailed hydrogeologic investigation is warranted, which could be performed now or during an RI/FS.

Site Inspection

Part 1 Years of Operation

- Fill in, if not known write in unknown.

Part 3 - Unstable Containment of Wastes

- Fill in date this observation occurred.

V. - Sources of Information

Include State Inspection and date of inspection.

Part 5 Drinking Water Supply

- Indicate if wells are endangered, affected or monitored, and the nearest distance to a non-community well.

Depth to Bedrock

- Determine from available references.

Part 6 Field Measurements Taken

- Include any data such as depth to water, total depth of well, etc.

UTD980959225 Wasatch Plaza, Salt Lake City, Utah

1. In beginning of report, it should also be stated that an offsite soil is collected as a basis of comparison for onsite soil and is represetnative of local natural soil elemental concentrations.

2. No upstream sediment was taken; even offsite, upstream sediment would be acceptable. When stated in report that downstream sediment is contaminated, it should be shown that these concentrations are significantly higher than the upgradient. Otherwise, the contamination is not necessarily originating from the site in question. If upstream sediment is collected and is relatively uncontaminated, potentially there is a release of contamination to the surface water.

3. Are "endangered" wells, set in the shallow aquifer (ground water at five feet BGS) used for a water supply? If not, this is not the aquifer of concern.

4. Ground water samples were preserved on site but not filtered. (They were collected from tap ftom which residents use the water.)

5. Additional ground water sampling is recommended as addressed in the report. Pertinent history on wells (within one mile of site) near site should be sampled.

UT0930050233 - State Motorcycle Park

Narrative

- Grammatical errors appears on page 2. Second sentence on page 3 should read - several tons of tailings.

Recommendation: Concur with recommendation that a follow up site inspection be conducted at State Motorcycle Park. Priority of inspection should be high due to the recreational nature of the site and ground water use with three miles of the site.

Site Inspection Form

Part 3 Contamination of soil - The second sentence should read "The site is bounded on the east and south" instead of "the site is bounded to the east and south."

Part 5 Potential Yield of Aquifer - Determine the potential yield from:

(i) Existing pumping test data from any well completed is the same aquifer within three miles of the site.

(ii) State Engineers logs for any well completed in the same aquifer that is within one mile of the site. If the log gives a discharge in gallons per minute, gallons per day can be calculated by multiplying the discharge by 1440.

Net Precipitation

- This value should be a negative number in the west. As stated in the text, precipitation is 16" per year. However, evaportranspiration is 37". 16" - 37" = -21".

Part 6 Field Measurements Taken - Fill in with appropriate data (i.e. pH, tem. specific conductance, etc.).

Recommendation: Concurs recommendation that the site warrants further consideration.

If you have any questions on these comments please feel free to contact Kelcey Yarbrough Land at (303) 293-1519.

Sincerely,

David A. Schaller, Chief
Superfund Program Section

cc: K. Land

8HWM-SR:3596N:K.LAND:ta:11/14/86